



CONSERVATIVE VERSUS SURGICAL TREATMENT OF GASTROESOPHAGEAL REFLUX-RELATED COUGH

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SAGES 2020 Virtual Meeting

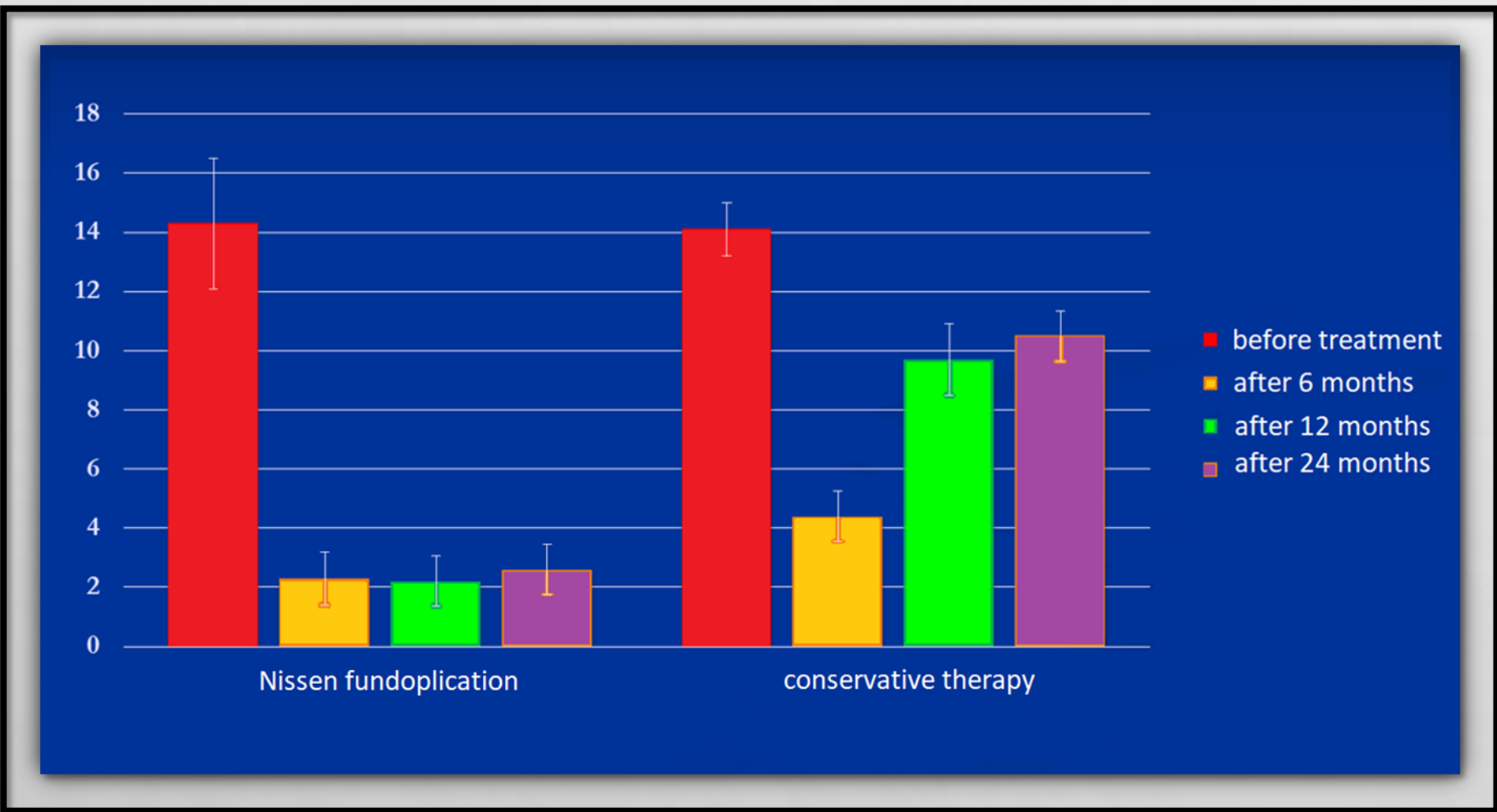
AIM: To compare the effectiveness of conservative and surgical treatment of patients with cough as an extraesophageal manifestation of GERD

MATERIALS AND METHODS:

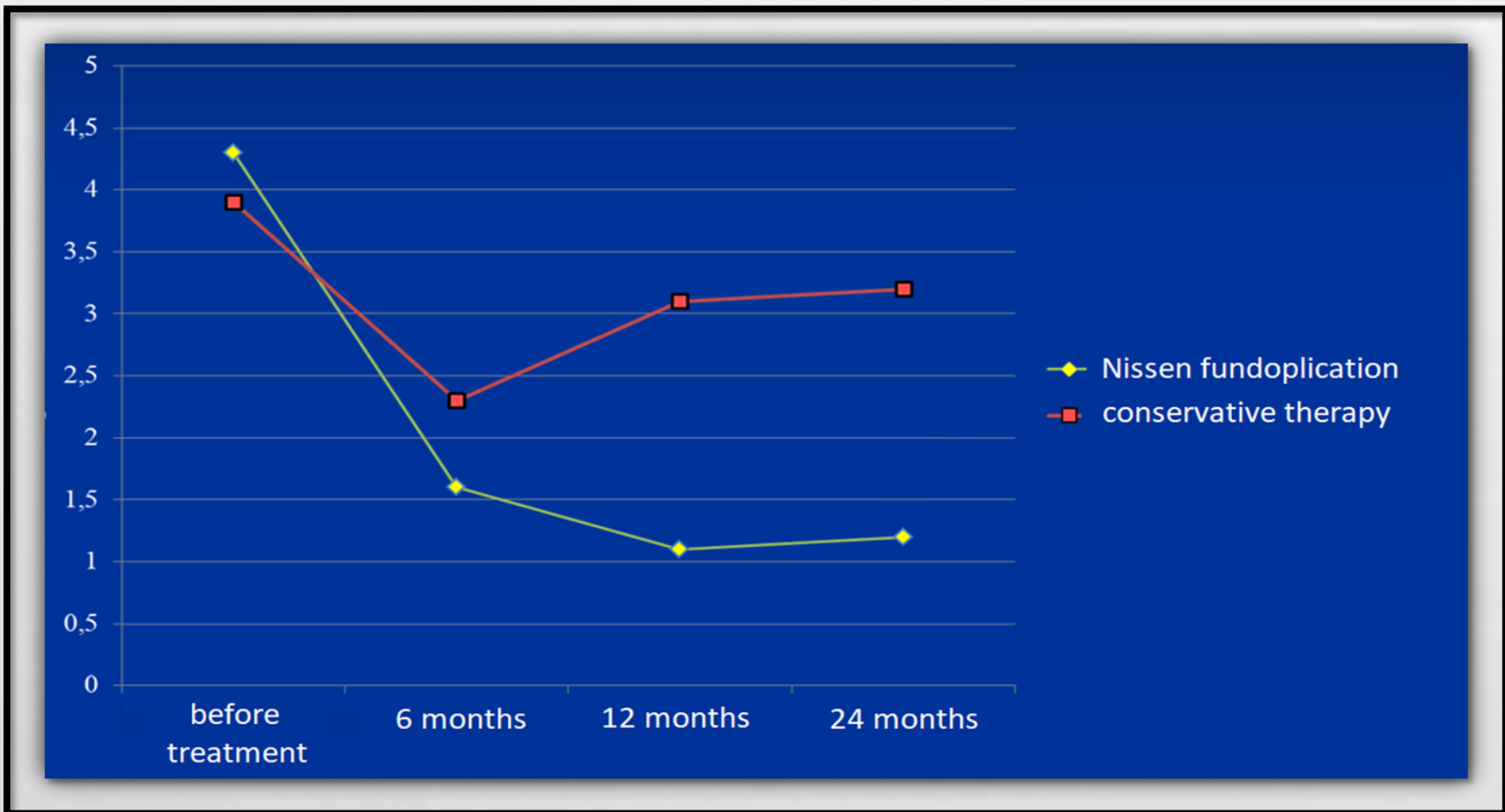
We performed prospective randomized trial in Odessa Regional Hospital from September 2015 to October 2016. Sixty six patients (25 males, 39 females), from 42 to 68 years old with heartburn, acid regurgitation and chronic cough were enrolled and divided into two groups. I group included 41 patients, who underwent laparoscopic Nissen fundoplication (LNF), and II group - 25 patients who received proton pump inhibitors (PPI) therapy. The results of the treatment were assessed using 10-point visual analogue scale (VAS) for frequency and intensity of cough, and GERD-HRQL quality of life questionnaire.

RESULTS:

Baseline characteristics were similar between groups. After a median follow-up of 26 months the prevalence of cough was significantly lower in patients who underwent LNF to compare with PPIs group (14.3% vs 48.4%, $p < 0.001$). Patients who underwent LNF to compare with PPIs therapy group had more significant decrease (measured by VAS) in frequency (14.3 vs 14.1, $p > 0.1$ at baseline, 2.2 vs 9.7, $p < 0.001$ at long term follow up) and intensity (4.3 vs 4.0, $p > 0.05$ at baseline, 1.1 vs 3.1, $p < 0.001$ at long term follow up) of cough. The quality of life significantly improved in both groups (I group from 15.9 ± 7.2 to 4.9 ± 0.8 , $p < 0.001$ vs II group from $16,2 \pm 8,4$ to $10,4 \pm 1,7$, $p < 0.001$).



Mean frequency of cough



Mean intensity of cough according to 10-point visual analogue scale

		I group n=41	II group n=25	p
Mean frequency of cough	Before treatment	14,3±4,4 (7-21)	14,1±2,5 (9-19)	0.8384
	6-month follow-up	2,3±1,8 (0-5)	4,4±3,4 (0-16)	0.0020
	12-month follow-up	2,2±1,7 (0-6)	9,7±4,8 (0-17)	<0.0001
	24-month follow-up	2,4±1,9 (0-6)	9,3±4,9 (0-17)	<0.0001
Mean intensity of cough	Before treatment	4,3±2,6 (2-6)	3,9±1,9 (2-7)	0.5129
	6-month follow-up	1,6±0,8 (0-2)	2,3±1,0 (0-5)	0.0030
	12-month follow-up	1,1±0,7 (0-2)	3,1±1,2 (0-7)	<0.0001
	24-month follow-up	1,1±0,3 (0-2)	3,1±1,9 (0-7)	<0.0001

The dynamics of the clinical parameters of patients with respiratory manifestations of GERD

		I group n=41	II group n=25	p
Mean DeMeester score	Before treatment	74,2±15,1	71,6±19,0	0.5461
	6-month follow-up	15,9±8,0	21,9±13,1	0.0263
	12-month follow-up	12,7±4,3	42,2±9,4	<0.0001
	24-month follow-up	14,4±5,1	38,9±8,8	<0.0001
Mean symptom index score (%)	Before treatment	66,1±10,9	62,3±8,1	0.1424
	6-month follow-up	11,5±4,4	21,8±6,4	<0.0001
	12-month follow-up	10,7±3,8	49,5±5,7	<0.0001
	24-month follow-up	11,4±3,4	46,4±6,6	<0.0001

CONCLUSION: This study demonstrates that LNF comparing to PPI therapy have more significant impact on improvement of respiratory manifestations of GERD.

Mykola Paranyak and Viktor Grubnyk have nothing to disclose.